

SERIES 80

MICROCOMPUTER SYSTEM WITH WINCHESTER DISK

S-180,
A-10K,

Series 80—the latest in Applied Data Communications' line of powerful microcomputer systems. Reliable and versatile. Built to do the jobs of higher-priced minicomputer systems.

Series 80 systems offer the systems-builder or user enhanced processing and I/O power plus the advantages of Winchester disk storage. Winchester technology gives Series 80 many times more storage capacity (up to 116 megabytes), greater data protection, and greater operator convenience than systems using only floppy disk storage. The Winchester disk gives a Series 80 the utility and flexibility to do big jobs in both business and



technical applications, such as distributed data processing functions and low cost turnkey products.

A basic Series 80 system, including a 14.5-megabyte Winchester drive, one floppy disk drive, and MicroDos/Basic II™ software, costs the system builder under \$10,000. Both software and hardware are easily expanded to accommodate additional users (CRT's) and additional printers.

For the price, that's a lot of computer—for

general-purpose or dedicated business applications, for a test or process controller, or for many other applications.

ADC APPLIED DATA
COMMUNICATIONS

FEATURES

- Winchester disk technology—14.5 or 29 megabytes per drive.
- Tape drive back-up option.
- Enhanced microprocessor speeds.
- Multi-user capability.
- Multiple printer options.
- Full communications capabilities, including X.25 protocol.
- MicroDOS/BASIC II™ and/or MicroEXEC™ language.
- National field service support.
- Utility and special applications software available.

SPECIFICATION SUMMARY

HARDWARE SYSTEM

Computer

Microprocessor—Enhanced INTEL 8080A, and support devices, all on a single printed circuit board.

Instruction Time—1 μ sec to 4.25 μ sec.

Cycle Time—350 nanoseconds.

Access Time—300 nanoseconds.

Number of Programmable Registers—Seven.

Number of I/O Ports—256.

Memory—65,536 bytes (64K).

Firmware—2K EPROM Bootstrap Loader. Additional firmware may be added.

Peripheral Controllers—Built into basic hardware system.

Data Formats

Word Length—Eight-bit byte.

Format Types—Decimal, extended precision decimal, binary integer, and string.

Decimal Digits Accuracy—Nine or 15, with BCD floating point arithmetic.

Mass Storage

Drives are controlled by a built-in controller/formatter. A drive may be programmed to work either through programmed I/O commands, or by direct memory access (DMA). The controller manages data either by cylinder and sector; or by means of File-handling macros including Create, Open, Read, Write, Lock, Unlock Position, Close and Erase. Files may be accessed using sequential, indexed-sequential, or direct addressing.

Series 80 disk storage options are as follows:

Model

80-A From one to four 14-inch Winchester drives, 14.5 megabytes per drive.

80-B From one to four 14-inch Winchester drives, 29 megabytes per drive.

Both models include one double-sided, double-density floppy drive (1.2 megabytes).

Storage Specifications

	80-A	80-B
Capacity, unformatted (megabytes)	14.5	29
Cylinders	202	202
Tracks	808	1616
Heads	4	8

Keyboard/Console Input

The CRT console, available from ADC, features a display of twenty-four 80-character lines and full typewriter keyboard, with an optional 10-key touchpad.

Input/Output Devices

Magnetic tape drive—option available.

Serial and line printers—300-LPM Teletype 40, 120-CPS Centronics, 55-CPS NEC Spinwriter, or high-speed printers up to 1400 LPM.

Communications Capabilities

Asynchronous Ports—One port of up to 19,200 baud is standard. Either four, or eight, additional ports of up to 19,200 baud can be added.

Synchronous Lines—Up to two lines, each of up to 50,000 bits per second. These two lines may be used asynchronously, if desired.

X.25 communications option is available.

SOFTWARE SYSTEM

Machine Language—MicroEXECTM, the system's highly versatile editor/assembler, also manages all computer system operations including execution of user programs and input-output of both mass storage and printing terminals; and tracks storage files for each program. Also includes diagnostics for basic computer system and all peripherals and communications.

Operating System—MicroDOS/BASIC IITM maintains the programming simplicity of BASIC, while extending its capabilities to encompass all the flexibility and versatility required for a multi-user computer system.

Background Processing—Allows long-running programs to be processed in the background while the operator simultaneously uses the console for other tasks.

File Capabilities—Equivalent to ANSI COBOL.

File Organization—Sequential, relative (direct), and indexed-sequential.

File Access Methods—Sequential, relative, indexed, and consecutive.

Multi-User File Protection—Files are identified by name with user and access protection codes.

Edit Control—COBOL-type format with string match. Includes decimal point alignment, zero suppression, comma insertion, asterisk check protect, floating collar, credit or debit, and character insertion.

String Manipulation—Variable-length strings, substring reference, and string arrays.

External Subroutine Capability

ADC APPLIED DATA
COMMUNICATIONS

It's as simple as ADC.

Headquarters: 14272 Chambers Road, Tustin, CA 92680, (714) 731-9000

Eastern Reg. Office: 50 Mall Road, Suite 209, Burlington, MA 01803, (617) 273-4844